

REMARKS

Claims 23-46 are pending in the application. Claims 23, 45 and 46 have been amended to indicate that the theoretical content of $-\text{Si}(\text{O}-)_3$ structural units is less than 1.2 wt.%, based on the total solids content of the polyurethane. Support for the amendments can be found in cancelled Claim 37 and page 12, lines 25-30 of the specification. Claim 29 has been amended to correct a typographical error. Claim 40 has been amended to more particularly claim the invention. The amendment is supported at, for example, page 14, lines 15-29. Applicants appreciate the Examiner's indication of allowable subject matter in claims 26, 27, 31-31, 36 and 38.

Claim 29 stands rejected under 35 U.S.C. § 112, second paragraph as the Examiner indicates the word "they" is improper. Claim 29 has been amended to correct this typographical error. Therefore, the rejection of claim 29 under 35 U.S.C. § 112, second paragraph should be withdrawn.

Claim 40 stands rejected under 35 U.S.C. § 112, second paragraph as the Examiner indicates it is unclear what constitutes a desired viscosity and molecular weight. The claim has been amended to address the Examiner's concerns. Therefore the rejection of claim 40 under 35 U.S.C. § 112, second paragraph should be withdrawn.

Claims 23, 28, 41, 42, 45, and 46 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,866, 651 to Moren et al. (hereinafter "Moren").

Claim 23 has been amended to include the limitations of cancelled claim 37, i.e., that the theoretical content of $-\text{Si}(\text{O}-)_3$ structural units in the polyurethane is less than 1.2 wt.%, based on the total solids content of the polyurethane.

In order to anticipate a claim, a prior art reference must disclose every limitation in the claim. As Moren does not disclose polyurethanes where the theoretical content of $-\text{Si}(\text{O}-)_3$ structural units is less than 1.2 wt.%, based on the total solids content of the polyurethane, Moren can not anticipate the presently amended claims. As such, amended claims 23, 28, 41, 42, 45 and 46 are not anticipated by Moren and the rejection under 35 U.S.C. § 102(b) should be

withdrawn.

Claims 24, 25, 30, 35, 37, 39, 40, 43, and 44 stand rejected under 35 U.S.C. § 103(a) as being obvious over Moren. The Examiner suggests that the limitation that the theoretical content of -Si-(O-)_3 structural units is less than 1.2 wt.%, based on the total solids content of the polyurethane would have been an obvious adjustment as a result effective variable. Applicants respectfully disagree.

The present invention is directed to a polyurethane solution containing alkoxysilane structural units. The polyurethane is the reaction product of at least one at least difunctional polyol, at least one at least difunctional polyisocyanate, at least one low molecular weight at least difunctional alcohol and/or amine, at least one compound containing at least one alkoxysilane group and an isocyanate-reactive group, and optionally a monofunctional compound containing an amino, alcohol or oxime group. The theoretical content of -Si-(O-)_3 structural units in the polyurethane is less than 1.2 wt.%, based on the total solids content of the polyurethane. The claimed polyurethanes can be used in coatings for rigid or non-rigid/flexible substrates, such as textiles and leather with a high level of mechanical properties. Notably, textiles and leather where such coatings are used exhibit desirable extensibility, elasticity, and a pleasantly soft handle. When a higher content of -Si-(O-)_3 structural units are present, textiles and leather where such coatings are used lose the desired properties (See page 12, lines 25-30 of the specification).

Moren discloses moisture curable sealant compositions based on alkoxysilane functional poly(ether-urethane)s prepared from hydroxycarbamoylalkoxysilanes. The compositions are used in paint to provide adhesion even in the absence of polar solvents or polar plasticizers. Moren indicates that -Si-(O-)_3 structural groups are preferred (col. 3, lines 46-47) and demonstrates that increasing the content of -Si-(O-)_3 structural groups improves paint adhesion (see the examples, particularly examples 2-4 in Table 1 and examples 10-12 in Table 4, col. 13, line 11 to col. 15, line 38). The sealants are designed for use on rigid surfaces exclusively, such as glass, metal, wood, and polymers and in particular cold rolled steel, primed steel, galvanized steel,

aluminum, thermoplastics, paint coated surfaces, and fiberglass reinforced plastics (col. 9, lines 55-61).

It is readily observed that Moren is directed to subject matter that is non-analogous to the present invention, namely coatings for exclusive use on rigid substrates, while the present invention is directed to coatings for rigid or non-rigid/flexible substrates. Therefore, one skilled in the art would not look to Moren for guidance in developing multiuse polyurethanes for use in coatings as in the presently claimed invention.

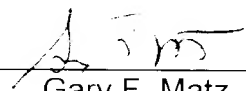
Further, Moren teaches away from the presently claimed invention. While the amended claims indicate a clear upper limit on $-\text{Si}(\text{O}-)_3$ structural units, Moren teaches that increasing the amount of $-\text{Si}(\text{O}-)_3$ structural units is desirable. Therefore, Moren does not render the amended claims obvious.

For the reasons stated above, Claims 24, 25, 30, 35, 37, 39, 40, 43, and 44 are not obvious over Moren and the rejection under 35 U.S.C. § 103(a) should be withdrawn.

Applicants assert that the claims are in form for allowance and respectfully request that a timely Notice of Allowance be issued in this application.

Respectfully submitted,

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